

AMENDMENT TO THE CLAIMS:

1-10. (Canceled)

11. (New) An evaporator comprising:

at least a first heat exchanger and a second heat exchanger for top loading of a medium to be concentrated wherein each of said heat exchangers is heated in cross stream by steam having different compositions and different pressures;

means for separately discharging said medium concentrated and exhaust vapors generated after escaping from said heat exchangers;

a medium distributor common for all of said heat exchangers for feeding said medium to be concentrated wherein the medium escaping from said first heat exchanger is directly fed to the second heat exchanger;

means for discharging the medium from the second heat exchanger thereby separating said medium from said exhaust vapors;

a first common dividing wall for separating a space for said exhaust vapors from steam spaces of the heat exchangers; and

a second dividing wall between said heat exchangers separating said steam spaces and/or turning chambers of the heat exchangers from each other.

12. (New) The evaporator as set forth in claim 11 further comprising a separated conduit provided for each of said heat exchangers for separately discharging condensates of the heat exchangers.

13. (New) The evaporator as set forth in claim 11 wherein the heat exchangers are made of different materials.

14. (New) The evaporator as set forth in claim 11 further comprising:

means for heating said first heat exchanger by exhaust vapors; and

means for heating said second heat exchanger by turbine steam.